

Geological Survey of Wyoming
Mineral Report 90-6

THE TREADWELL GOLD-SILVER MINE, MINERAL HILL
DISTRICT, CROOK COUNTY, WYOMING

by
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1990

The Treadwell open cut is located along the northwestern flank of Mineral Hill in the northwestern Black Hills (Hausel, 1989; 1990). Welch (1974) shows this area to consist of altered feldspathic syenite.

The Mineral Hill area has had a history of gold and tin mining. Early production history according to Knight (1893) amounted to about 9,000 ounces of placer gold. No mention was made of lode production. Some tin was also recovered from the Mineral Hill placers. Tin-bearing pegmatites were mined in the nearby Tinton district of South Dakota.

This report is a follow-up to an earlier report on samples collected in the Mineral Hill district by the author in August of 1990 (see Hausel, 1990). During examination of the Treadwell property with TRYCCO, Inc., Rick Parent exposed two near horizontal, gossaniferous, quartz veins in the highwall of the open cut. Samples of the limonitic vein were collected for assay. The following results were obtained.

Sample No	Description	Gold	Silver
TW1-89	Feldspathic breccia from mine dump	<0.005 ppm	<5 ppm
TW2-89	Breccia	<0.005 ppm	<5 ppm
TW3-89	Graphitic sulfide-bearing nodule	<0.050 ppm	<1.0 ppm
TW4-89	Limonitic quartz vein	130 ppm	330 ppm
TW5-89	Limonite-stained syenite	0.06 ppm	<1.0 ppm
TW6-89	silicified trachyte	1.39 ppm	9 ppm
TW7-89	silicified grey porphyry	< 0.05 ppm	<1.0 ppm
TW8-89	quartz vein	0.36 ppm	<5 ppm
TW9-89	vertical fracture vein	0.056 ppm	<5 ppm
TW10-89	limonitic quartz vein	21 ppm	65 ppm

In addition to the precious metal values, sample TW4-89 contained 0.287 % copper and 2.32 % lead; and sample TW10-89 contained 0.19 % copper and 1.47 % lead.

REFERENCES CITED

- Hausel, W.D., 1989, The geology of Wyoming's precious metal lode and placer deposits: Geological Survey of Wyoming Bulletin 68, 248 p.
- Hausel, W.D., 1990, Gold analyses from the Treadwell mine, Mineral Hill district: Geological Survey of Wyoming unpublished Mineral Report MR90-3, 3 p.
- Knight, W.C., 1893, Notes on the mineral resources of the State: University of Wyoming Experiment Station Bulletin 14, P. 103-212.

Welch, C.M., 1974, A preliminary report on the geology of the Mineral Hill area, Crook County Wyoming: M.S. thesis, South Dakota School of Mines and Technology, Rapid City, 83 p.

INTERIOR
VEY

571000mE

930000 FEET (S. DAK.)

U.S.M.S.
BSE 1-89 42-89
MHR-88

TWI-89
to TW10-89

Incorrect
location



CROOK CO
LAWRENCE CO

MERIDIAN

BLACK HILLS



1000m E

930000 FEET (S. DAK.)

Uems
BSEI-89 (2-89)
MHI-80

TWI-89
to TWI0-89

Incorrect location

30 Bull Hill

Prospect

574

575

6294T

7269

Treadwell Mine

5856T

6097

6055T

6291AT

5927T

5828

6875

TINTON

Prospect

6096T

6290

6208T

6208

6875

Prospect

Prospect

6096T

6208

6208

6208

6875

Prospect

BM 240

5982T

6080AT

6254T

6438T

6623

6600

6245T

6080AT

6254T

6438T

6623

6600

6600

6245T

5903T

6046T

6250

6440

6440

6440

6440

6046T

6250

6440

6440

6440

6440

6440

6005T

6148AT

6250

6574T

6600

6600

6600

6005T

6148AT

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6574T

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make No 2

CROOK CO
LAWRENCE CO

MERIDIAN

BLACK HILLS

make No 2